

## **Amendment to the Specification:**

- 1) *On page 1, insert the sentence --This application claims benefit of Provisional Patent Application no. 60/261,586, filed January 12, 2001.-- in between “Latch for Sponge Mop” and “Field of the Invention”.*

*Thus amended, page 1 should now read beginning as follows:*

Patent Application of  
Robert A. Cann  
For  
Latch for Sponge Mop

This application claims benefit of Provisional Patent Application no. 60/261,586, filed January 12, 2001.

### **Field of the Invention**

This invention relates to fasteners and latches, and more particularly, to an improvement in a type of quick release latch used to secure detachable sponges to sponge mops.

### **Background of the Invention**

Sponge mops are well known in prior art, as are methods for securing detachable sponges to them. It is common practice to glue or similarly bond a rectangular sponge to a backing plate structure, which in turn is detachably secured to a mop head at or near each end of a sponge. [Text continues as in original specification]

## **Amendment to the Specification (continued):**

2) *In the Summary of Invention section on page 3, amend the second paragraph as follows:*

Each tab is centrally ~~locate~~ located on a beam, the beam extending a short distance beyond either end of the tab until it interconnects with the sponge backing plate. This short section of beam beyond each end of each tab twists or rotates more or less torsionally when the tabs are squeezed together. A central void separates the beams longitudinally and an outer void separates each beam longitudinally from the rest of the backing plate. Torsion stress in this beam member is more uniformly distributed than the bending stress concentrated at the inside corners of the L-shaped tab structures of the prior art Empire latch. Thus, the latch of my invention is less prone to breakage than the prior art Empire latch because the bending stress is more uniformly distributed over a larger area. The beam sections of the backing plate of my invention may be glued or bonded to the sponge, but the sponge is resilient and flexible enough that it has little or no effect on the torsion beams.

## **Amendment to the Specification (continued):**

3) Amend the Reference Numerals Used in Drawings section on page 4 as follows:

### Reference Numerals Used in Drawings

<b>20</b> improved latch	<b>34</b> mop head aperture
<b>22</b> sponge mop	<b>36</b> ramp
<b>24</b> tab	<b>38</b> central portion of tab
<b>26</b> sponge	<b>40</b> beam
<b>28</b> <del>void between tabs</del> <u>central void</u>	<b>42</b> backing plate
<b>29</b> <u>outer void</u>	<b>44</b> beam segment
<b>30</b> upper portion of tab	<b>46</b> tab end
<b>32</b> lower portion of tab	

## Amendment to the Specification (continued):

4) Amend the Detailed Description of the Drawings section on page 4 as follows:

### Detailed Description of the Drawings

Referring to FIGS. 5 through FIG. 8, an improved latch 20 for a sponge mop 22 according to my invention is comprised of a pair of opposed tabs 24, 24 positioned more or less in line and centrally located at each end of a sponge 26. The tabs 24, 24 are generally parallel to each other ~~with a void 28 in between~~. An upper portion 30 and lower portion 32 of each pair of tabs 24, 24 are spaced to fit closely within a corresponding mop head aperture 34, while a ramp 36 in a central portion 38 of the tab 24 slopes or angles outward such that the dimension between the opposed tab ramps 36, 36 is larger than the opening in the mop head aperture 34, thus creating an interference fit within the aperture 34.

Each tab 24 is centrally ~~locate~~ located on a beam 40, the beam 40 extending a short distance beyond either end of the tab 24 until it interconnects with a backing plate 42 ~~that is formed from a grid of interconnecting beams~~. A short beam segment 44 beyond an end 46 of each tab 24 twists or rotates more or less torsionally when the tabs 24, 24 are squeezed together. A central void 28 separates the beams 40, 40 longitudinally and an outer void 29 separates each beam 40 longitudinally from the rest of the backing plate 42.

To install the sponge 26 onto the mop 22 the upper tab end portions 30 of each latch 20 are pressed into the mop head apertures 34, 34 far enough that the ramps 36 deflect inward, pass through the aperture 34, and spring back to their original position, thus holding the sponge 26 onto the mop 22. To remove the sponge 26, the user squeezes and pushes on the upper portion of the tabs 30 that protrude from each mop head aperture 34.

The present invention has now been described in connection with a number of specific embodiments thereof. However, modifications that are contemplated as falling within the scope of the present invention should now be apparent to those skilled in the art.